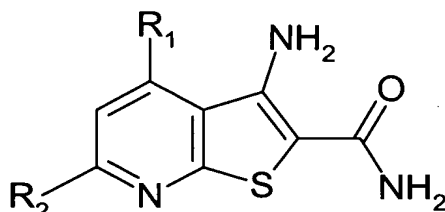


What is claimed is:

1. A pharmaceutical composition comprised of a compound of formula (I):

5



(I)

wherein:

10 R_1 is

- (a) phenyl or heteroaryl selected from furanyl, thienyl, pyridyl, pyrrolyl, imidazolyl and benzofuranyl, optionally substituted with one to two R_3 ,
- (b) heterocyclyl selected from 1-piperidinyl, 1-piperazinyl, 1-pyrrolidinyl and 4-morpholinyl, optionally substituted with one to two groups selected from C_{1-6} alkyl, $-CO_2C_{1-5}$ alkyl, phenyl, benzyl, $-OH$ and $-C(O)$ heteroaryl, wherein the heteroaryl is selected from furanyl, thienyl, pyridyl and pyrrolyl,
- (c) $R_6(CH_2)_mO-$,
- (d) R_6OCH_2- ,
- (e) $R_6(CH_2)_mNH-$,
- (f) $R_6(CH_2)_p(CH=CH)_m-$ or pyridyl $(CH_2)_p(CH=CH)_m-$
- (g) C_{1-6} alkyl, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (h) C_{3-6} cycloalkyl
- (i) C_{1-8} alkoxy, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (j) C_{1-8} alkyl $S(O)_n-$, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,

25

(k) $-N(R_4)(R_5)$, or

(l) $-C(O)NHR'$, wherein R' is R_6 , pyridyl or $-CH_3$;

R_2 is

5

(a) C_{1-6} alkyl, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,

(b) C_{1-6} alkoxy, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,

10 (c) C_{1-6} alkylamino, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,

(d) C_{1-6} alkylthio, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,

15 (e) heterocyclyl $(CH_2)_m-$ wherein said heterocycle is selected from piperidinyl, piperazinyl, morpholinyl, azepanyl, pyrrolidinyl, 1,4-diazacycloheptanyl, azepanyl, 2,5-diazabicyclo[2.2.1]heptanyl, oxazepanyl and thiomorpholino and is optionally substituted with one to three R_7 ,

(f) heterocyclyl CH_2O- wherein the heterocyclyl is selected from 1-piperidinyl, 1-piperazinyl, 4-morpholinyl and 1-pyrrolidinyl, optionally substituted with C_{1-6} alkyl,

20 (g) phenyl, optionally substituted with one to three R_3 ,

(h) $-N(R_4)(R_5)$,

(i) heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl and pyrrolyl, or

(j) $-H$;

25 R_3 is chosen from C_{1-6} alkyl, C_{1-6} alkoxy, hydroxy C_{1-6} alkyl, halogen, $-CN$, $-CO_2H$, $-CO_2C_{1-6}$ alkyl, $-S(O)_n C_{1-6}$ alkyl, $-NO_2$, $-OH$, $-CF_3$, $-N(R_4)(R_5)$, $-NHC(O)NHC_{1-6}$ alkyl, $-C(O)N(R_4)(R_5)$ and phenyl optionally substituted with halogen, C_{1-6} alkyl, $-CN$ or C_{1-6} alkoxy;

30 R_4 and R_5 are independently selected from H , C_{1-6} alkyl, $-C_{0-3}$ alkyl C_{3-6} cycloalkyl, $-C_{0-3}$ alkylheteroaryl, $-C_{0-3}$ alkylheterocyclyl, $-C_{0-3}$ alkylphenyl(R_6), 2-methylcyclohexyl, -

C(O)C₁₋₆alkyl, -SO₂C₁₋₆alkyl, phenyl, pyridyl, piperidiny, phenylethyl optionally substituted with hydroxymethyl, (CH₃)₃COC(O)-, -CH₂CO₂Me, -C₁₋₆alkylOH, -C₁₋₆alkylNMe₂, or alternatively R₄ and R₅ with the atom to which they are attached can be fused together to form a heterocyclic ring which may be substituted with an OH group;

- 5 R₆ is a phenyl group optionally substituted with one to three groups selected from halogen, C₁₋₆alkyl, -CN, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)NR₄R₅, -CH₂N(R₄)(R₅), -SO₂N(R₄)(R₅), -NHSO₂C₁₋₆alkyl, -SO₂C₁₋₆alkyl, -NO₂, -OH, -NH₂, -CF₃, OCF₂, OCF₃, OBenzyl, C₁₋₆alkoxy, a heteroaryl group which may be further substituted by an R₄ group, phenyl, a heterocyclic group, or alternatively when R₆ is phenyl two of its adjacent carbon atoms may be bridged by an -OCH₂O- or an -OCF₂O- group, or R₆ is C₃₋₆cycloalkyl, -CH₂OH, naphthalene-2-yl, naphthalene-1-yl or 2-thienyl;

- R₇ is selected from -OH, -CN, oxo, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)N(R₄)(R₅), -N(R₄)(R₅), -CH₂N(R₄)(R₅), -CH₂OH, C₁₋₆alkyl, -CO₂benzyl, hydroxyC₁₋₆alkyl, -C(O)C₁₋₆alkylN(R₄)(R₅), -NHCO₂C₁₋₆alkyl, -NHC(O)N(R₄)(R₅), -S(O)_nC₁₋₆alkyl, (CH₃)₃COC(O)-, phenyl, pyridyl, H₂NCH(R₈)C(O)-, HO(CH₂)_mCH₂CH(NH₂)C(O)-, 15 R₆(CH₂)_nCH(OH)CH₂NH-, R₆XCH₂CH(OH)CH₂NH- wherein X = O or N, -NHCH₂CH(OH)C(O)N(R₄)(R₅), NHCH₂C(O)N(R₄)(R₅), and -C(O)heterocyclyl, wherein said heterocyclyl is selected from piperidiny, piperaziny, morpholiny and pyrrolidiny, or R₇ is 2-hydroxyethylamino, methylcarbamidoyl, hydroxyimino, hydrozinocarbonyl, 20 sulfamoyl, methanesulfonylamino, methylsulfonylhydrazino, 2-hydroxypropylamino, 2-hydroxy-2-methylpropylamino, 2,3-dihydroxypropylamino, 2-hydroxy-1-methylethylamino, carbamoylmethylamino, N'-phenylhydrazinocarbonyl or toluene-4-sulfonylamino;

R₈ is selected from C₁₋₆alkyl, -(CH₂)₁₋₄NH₂, phenyl or benzyl;

- 25 R₉ is selected from oxo, -OH, -NR₄R₅, -CO₂H and C₁₋₆alkoxy;

R₁₀ is selected from oxo, -OH, -N(R₄)(R₅), C₁₋₆alkoxy, -C(O)C₁₋₆alkyl, -C(O)N(R₄)(R₅), R₆, and heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl, indolyl and pyrrolyl;

m is 0 or 1;

n is 0, 1 or 2; and

p is 0, 1, 2 or 3

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures
5 of isomers thereof.

2. A compound of claim 1 wherein:

R₁ is

- 10 (a) R₆(CH₂)_p(CH=CH)_m- or pyridyl(CH₂)_p(CH=CH)_m-
(b) C₃₋₆ cycloalkyl .

15

3. A compound of claim 1 wherein:

R₁ is

20

- (a) phenyl or heteroaryl selected from furanyl, thienyl, pyridyl, pyrrolyl, imidazolyl
and benzofuranyl, optionally substituted with one to two R₃,
(b) heterocyclyl selected from 1-piperidiny, 1-piperaziny, 1-pyrrolidiny and 4-
morpholiny, optionally substituted with one to two groups selected from C₁₋₆alkyl,
25 -CO₂C₁₋₅alkyl, phenyl, benzyl, -OH and -C(O)heteroaryl, wherein the heteroaryl is
selected from furanyl, thienyl, pyridyl and pyrrolyl,
(c) R₆(CH₂)_mO-,
(d) R₆OCH₂-,
(e) R₆(CH₂)_mNH-,

- (f) $R_6(CH_2)_p(CH=CH)_m-$ or pyridyl $(CH_2)_p(CH=CH)_m-$
- (g) C_{1-6} alkyl, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (h) C_{3-6} cycloalkyl
- 5 (i) C_{1-8} alkoxy, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (j) C_{1-8} alkylS(O) $_n-$, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (k) $-N(R_4)(R_5)$, or
- 10 (l) $-C(O)NHR'$, wherein R' is R_6 , pyridyl or $-CH_3$;

R_2 is

- 15 (a) C_{1-6} alkyl, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,
- (b) C_{1-6} alkoxy, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,
- (c) C_{1-6} alkylamino, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,
- 20 (d) C_{1-6} alkylthio, optionally partially or fully halogenated and optionally substituted with one to two R_{10} ,
- (e) heterocyclyl $(CH_2)_m-$ wherein said heterocycle is selected from piperidinyl, piperazinyl, morpholinyl, azepanyl, pyrrolidinyl, 1,4-diazacycloheptanyl, azepanyl, 2,5-diazabicyclo[2.2.1]heptanyl, oxazepanyl and thiomorpholino and is optionally substituted with one to three R_7 ,
- 25 (f) heterocyclyl CH_2O- wherein the heterocyclyl is selected from 1-piperidinyl, 1-piperazinyl, 4-morpholinyl and 1-pyrrolidinyl, optionally substituted with C_{1-6} alkyl,
- (g) phenyl, optionally substituted with one to three R_3 ,
- (h) $-N(R_4)(R_5)$,
- 30 (i) heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl and pyrrolyl, or
- (j) $-H$;

R₃ is chosen from C₁₋₆alkyl, C₁₋₆alkoxy, hydroxyC₁₋₆alkyl, halogen, -CN, -CO₂H, -CO₂C₁₋₆alkyl, -S(O)_nC₁₋₆alkyl, -NO₂, -OH, -CF₃, -N(R₄)(R₅), -NHC(O)NHC₁₋₆alkyl, -C(O)N(R₄)(R₅) and phenyl optionally substituted with halogen, C₁₋₆alkyl, -CN or C₁₋₆alkoxy;

- 5 R₄ and R₅ are independently selected from H, C₁₋₆alkyl, -C₀₋₃alkylC₃₋₆cycloalkyl, -C₀₋₃alkylheteroaryl selected from the list consisting of benzothiophenyl, furanyl, tetrazolyl, pyridyl, -C₀₋₃alkylheterocyclyl selected from the list consisting of piperidinyl and morpholinyl, -C₀₋₃alkylphenyl(R₆), -2-methylcyclohexyl, -C(O)C₁₋₆alkyl, -SO₂C₁₋₆alkyl, phenyl, pyridyl, piperidinyl, phenylethyl optionally substituted with hydroxymethyl, (CH₃)₃COC(O)-, -CH₂CO₂Me, -C₁₋₆alkylOH, -C₁₋₆alkylNMe₂, or alternatively R₄ and R₅ with the atom to which they are attached can be fused together to form a heterocyclic ring which may be substituted with an OH group;

R₆ is a phenyl group optionally substituted with one to three groups selected from halogen, C₁₋₆alkyl, -CN, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)NR₄R₅, -CH₂N(R₄)(R₅), -SO₂N(R₄)(R₅),

- 15 -NHSO₂C₁₋₆alkyl, -SO₂C₁₋₆alkyl, -NO₂, -OH, -NH₂, -CF₃, OCF₂, OCF₃, OBenzyl, C₁₋₆alkoxy, a heteroaryl group selected from the list consisting of pyridyl, pyrazine, imidazolyl and thiazolyl which may be further substituted by an R₄ group, phenyl, a heterocyclic group, or alternatively when R₆ is phenyl two of its adjacent carbon atoms may be bridged by an -OCH₂O- or an -OCF₂O- group, or R₆ is C₃₋₆cycloalkyl, -CH₂OH, naphthalene-2-yl, naphthalene-1-yl or 2-thienyl;

R₇ is selected from -OH, -CN, oxo, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)N(R₄)(R₅), -N(R₄)(R₅), -CH₂N(R₄)(R₅), -CH₂OH, C₁₋₆alkyl, -CO₂benzyl, hydroxyC₁₋₆alkyl, -C(O)C₁₋₆alkylN(R₄)(R₅), -NHCO₂C₁₋₆alkyl, -NHC(O)N(R₄)(R₅), -S(O)_nC₁₋₆alkyl, (CH₃)₃COC(O)-, phenyl, pyridyl, H₂NCH(R₈)C(O)-, HO(CH₂)_mCH₂CH(NH₂)C(O)-,

- 25 R₆(CH₂)_nCH(OH)CH₂NH-, R₆XCH₂CH(OH)CH₂NH- wherein X = O or N, -NHCH₂CH(OH)C(O)N(R₄)(R₅), NHCH₂C(O)N(R₄)(R₅), and -C(O)heterocyclyl, wherein said heterocyclyl is selected from piperidinyl, piperazinyl, morpholinyl and pyrrolidinyl, or R₇ is 2-hydroxyethylamino, methylcarbamimidoyl, hydroxyimino, hydrozinocarbonyl, sulfamoyl, methanesulfonylamino, methylsulfonylhydrazino, 2-hydroxypropylamino, 2-hydroxy-2-methylpropylamino, 2,3-dihydroxypropylamino, 2-hydroxy-1-

methylethylamino, carbamoylmethylamino, N'-phenylhydrazinocarbonyl or toluene-4-sulfonylamino;

R₈ is selected from C₁₋₆alkyl, -(CH₂)₁₋₄NH₂, phenyl or benzyl;

R₉ is selected from oxo, -OH, -NR₄R₅, -CO₂H and C₁₋₆alkoxy;

- 5 R₁₀ is selected from oxo, -OH, -N(R₄)(R₅), C₁₋₆alkoxy, -C(O)C₁₋₆alkyl, -C(O)N(R₄)(R₅), R₆, and heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl, indolyl and pyrrolyl;

m is 0 or 1;

n is 0, 1 or 2; and

p is 0, 1, 2 or 3

- 10 and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

4. The compounds of claim 1 wherein:

wherein:

15

R₁ is

- (a) phenyl or heteroaryl selected from furanyl, thienyl, pyridyl, pyrrolyl, imidazolyl and benzofuranyl, optionally substituted with one to two R₃,
- 20 (b) heterocyclyl selected from 1-piperidinyl, 1-piperazinyl, 1-pyrrolidinyl and 4-morpholinyl, optionally substituted with one to two groups selected from C₁₋₆alkyl, -CO₂C₁₋₅alkyl, phenyl, benzyl, -OH and -C(O)heteroaryl, wherein the heteroaryl is selected from furanyl, thienyl, pyridyl and pyrrolyl,
- (c) R₆(CH₂)_mO-,
- 25 (d) R₆OCH₂-,
- (e) R₆(CH₂)_mNH-,

- (f) $R_6(CH_2)_p(CH=CH)_m$ - or pyridyl $(CH_2)_p(CH=CH)_m$ -
- (g) C_{1-6} alkyl, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (h) C_{3-6} cycloalkyl
- 5 (i) C_{1-8} alkoxy, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (j) C_{1-8} alkylS(O) $_n$ -, optionally partially of fully halogenated and optionally substituted with one to two R_9 ,
- (k) $-N(R_4)(R_5)$, or
- 10 (l) $-C(O)NHR'$, wherein R' is R_6 , pyridyl or $-CH_3$;

R_2 is

- (a) heterocyclyl $(CH_2)_m$ - wherein said heterocycle is selected from piperidinyl,
 - 15 piperazinyl, morpholinyl, azepanyl, pyrrolidinyl, 1,4-diazacycloheptanyl, azepanyl, 2,5-diazabicyclo[2.2.1]heptanyl, oxazepanyl and thiomorpholino and is optionally substituted with one to three R_7 ,
- (b) heterocyclyl CH_2O - wherein the heterocyclyl is selected from 1-piperidinyl, 1-piperazinyl, 4-morpholinyl and 1-pyrrolidinyl, optionally substituted with C_{1-6} alkyl,
- 20 (c) phenyl, optionally substituted with one to three R_3 ,
- (d) heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl and pyrrolyl, or

R_3 is chosen from C_{1-6} alkyl, C_{1-6} alkoxy, hydroxy C_{1-6} alkyl, halogen, $-CN$, $-CO_2H$, $-CO_2C_{1-6}$ alkyl, $-S(O)_nC_{1-6}$ alkyl, $-NO_2$, $-OH$, $-CF_3$, $-N(R_4)(R_5)$, $-NHC(O)NHC_{1-6}$ alkyl, $-C(O)N(R_4)(R_5)$ and phenyl optionally substituted with halogen, C_{1-6} alkyl, $-CN$ or C_{1-6} alkoxy;

R_4 and R_5 are independently selected from H, C_{1-6} alkyl, $-C_{0-3}$ alkyl C_{3-6} cycloalkyl, $-C_{0-3}$ alkylheteroaryl selected from the list consisting of benzothiophenyl, furanyl, tetrazolyl, pyridyl,, $-C_{0-3}$ alkylheterocyclyl selected from the list consisting of piperidinyl and
 30 morpholinyl, $-C_{0-3}$ alkylphenyl(R_6), -2 -methylcyclohexyl, $-C(O)C_{1-6}$ alkyl, $-SO_2C_{1-6}$ alkyl, phenyl, pyridyl, piperidinyl, phenylethyl optionally substituted with hydroxymethyl,

(CH₃)₃COC(O)-, -CH₂CO₂Me, -C₁₋₆alkylOH, -C₁₋₆alkylNMe₂, or alternatively R₄ and R₅ with the atom to which they are attached can be fused together to form a heterocyclic ring which may be substituted with an OH group;

R₆ is a phenyl group optionally substituted with one to three groups selected from halogen,
5 C₁₋₆alkyl, -CN, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)NR₄R₅, -CH₂N(R₄)(R₅), -SO₂N(R₄)(R₅),

-NHSO₂C₁₋₆alkyl, -SO₂C₁₋₆alkyl, -NO₂, -OH, -NH₂, -CF₃, OCF₂, OCF₃, OBenzyl, C₁₋₆alkoxy, a heteroaryl group selected from the list consisting of pyridyl, pyrazinyl, imidazolyl and thiazolyl which may be further substituted by an R₄ group, phenyl, a heterocyclic group, or alternatively when R₆ is phenyl two of its adjacent carbon atoms
10 may be bridged by a an -OCH₂O- or an -OCF₂O- group, or R₆ is C₃₋₆cycloalkyl, -CH₂OH, naphthalene-2-yl, naphthalene-1-yl or 2-thienyl;

R₇ is selected from -OH, -CN, oxo, -CO₂C₁₋₆alkyl, -CO₂H, -C(O)N(R₄)(R₅), -N(R₄)(R₅), -CH₂N(R₄)(R₅), -CH₂OH, C₁₋₆alkyl, -CO₂benzyl, hydroxyC₁₋₆alkyl, -C(O)C₁₋₆alkylN(R₄)(R₅), -NHCO₂C₁₋₆alkyl, -NHC(O)N(R₄)(R₅), -S(O)_nC₁₋₆alkyl, (CH₃)₃COC(O)-, phenyl, pyridyl, H₂NCH(R₈)C(O)-, HO(CH₂)_mCH₂CH(NH₂)C(O)-,
15 R₆(CH₂)_nCH(OH)CH₂NH-, R₆XCH₂CH(OH)CH₂NH- wherein X = O or N, -NHCH₂CH(OH)C(O)N(R₄)(R₅), NHCH₂C(O)N(R₄)(R₅), and -C(O)heterocyclyl, wherein said heterocyclyl is selected from piperidiny, piperazinyl, morpholinyl and pyrrolidinyl, or R₇ is 2-hydroxyethylamino, methylcarbamidoyl, hydroxyimino, hydrozinocarbonyl, sulfamoyl, methanesulfonylamino, methylsulfonylhydrazino, 2-hydroxypropylamino, 2-hydroxy-2-methylpropylamino, 2,3-dihydroxypropylamino, 2-hydroxy-1-methylethylamino, carbamoylmethylamino, N'-phenylhydrazinocarbonyl or toluene-4-sulfonylamino;
20

R₈ is selected from C₁₋₆alkyl, -(CH₂)₁₋₄NH₂, phenyl or benzyl;

25 R₉ is selected from oxo, -OH, -NR₄R₅, -CO₂H and C₁₋₆alkoxy;

R₁₀ is selected from oxo, -OH, -N(R₄)(R₅), C₁₋₆alkoxy, -C(O)C₁₋₆alkyl, -C(O)N(R₄)(R₅), R₆, and heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl, indolyl and pyrrolyl;

m is 0 or 1;

n is 0, 1 or 2; and

p is 0, 1, 2 or 3

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures
5 of isomers thereof.

5. The compounds of claim 1 wherein:

R₁ is

10

(a) phenyl or heteroaryl selected from furanyl, thienyl, pyridyl, pyrrolyl, imidazolyl
and benzofuranyl, optionally substituted with one to two R₃,

(b) heterocyclyl selected from 1-piperidiny, 1-piperaziny, 1-pyrrolidiny and 4-
morpholiny, optionally substituted with one to two groups selected from C₁₋₆alkyl,
15 -CO₂C₁₋₅alkyl, phenyl, benzyl, -OH and -C(O)heteroaryl, wherein the heteroaryl is
selected from furanyl, thienyl, pyridyl and pyrrolyl,

(c) R₆(CH₂)_mO-,

(d) R₆OCH₂-,

(e) R₆(CH₂)_mNH-,

20 (f) R₆(CH₂)_p(CH=CH)_m- or pyridyl(CH₂)_p(CH=CH)_m-

(g) C₁₋₆alkyl, optionally partially of fully halogenated and optionally substituted with
one to two R₉,

(h) C₃₋₆ cycloalkyl

(i) C₁₋₈alkoxy, optionally partially of fully halogenated and optionally substituted with
25 one to two R₉,

(j) C₁₋₈alkylS(O)_n-, optionally partially of fully halogenated and optionally substituted
with one to two R₉,

(k) -N(R₄)(R₅), or

(l) -C(O)NHR', wherein R' is R₆, pyridyl or -CH₃;

R₂ is heterocyclyl(CH₂)_m- wherein said heterocycle is selected from piperidinyl, optionally substituted with one to three R₇,

- 5 R₃ is chosen from C₁₋₆alkyl, C₁₋₆alkoxy, hydroxyC₁₋₆alkyl, halogen, -CN, -CO₂H, -CO₂C₁₋₆alkyl, -S(O)_nC₁₋₆alkyl, -NO₂, -OH, -CF₃, -N(R₄)(R₅), -NHC(O)NHC₁₋₆alkyl, -C(O)N(R₄)(R₅) and phenyl optionally substituted with halogen, C₁₋₆alkyl, -CN or C₁₋₆alkoxy;

- R₄ and R₅ are independently selected from, -C₀₋₃alkylheteroaryl, -C₀₋₃alkylheterocyclyl, -
10 C₀₋₃alkylphenyl(R₆), -2-methylcyclohexyl, -C(O)C₁₋₆alkyl, -SO₂C₁₋₆alkyl, phenyl, pyridyl, piperidinyl, phenylethyl optionally substituted with hydroxymethyl, (CH₃)₃COC(O)-, -CH₂CO₂Me, -C₁₋₆alkylOH, -C₁₋₆alkylNMe₂, or alternatively R₄ and R₅ with the atom to which they are attached can be fused together to form a heterocyclic ring which may be substituted with an OH group, provided that R₄ or R₅ are not methyl or benzyl and R₄ and
15 R₅ are not both H;

- R₆ is a phenyl group substituted with one to three groups selected from C₁₋₆alkyl -CN, -CO₂H, -CH₂N(R₄)(R₅), -SO₂N(R₄)(R₅), -C(O)NR₄R₅, NHSO₂C₁₋₆alkyl, -SO₂C₁₋₆alkyl, -CF₃, OCF₂, OCF₃, OBenzyl, C₂₋₆alkoxy, a heteroaryl group selected from the list consisting of pyridyl, pyrazinyl, imidazolyl and thiazolyl which may be further
20 substituted by an R₄ group, phenyl, a heterocyclic group, or alternatively when R₆ is phenyl two of its adjacent carbon atoms may be bridged by an -OCH₂O- or an -OCF₂O-group;

R₇ is selected from R₆(CH₂)_nCH(OH)CH₂NH-, R₆XCH₂CH(OH)CH₂NH- wherein X = O;

R₉ is selected from oxo, -OH, -NR₄R₅, -CO₂H and C₁₋₆alkoxy;

- 25 R₁₀ is selected from oxo, -OH, -N(R₄)(R₅), C₁₋₆alkoxy, -C(O)C₁₋₆alkyl, -C(O)N(R₄)(R₅), R₆, and heteroaryl selected from furanyl, thienyl, imidazolyl, pyridyl, indolyl and pyrrolyl;
m is 0 or 1;

n is 0, 1 or 2; and

p is 0, 1, 2 or 3.

6. A pharmaceutical composition of claim 1 selected from the list consisting of:

5

3-Amino-6-{4-[2-(4-carbamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-{4-[2-hydroxy-2-(4-methylcarbamoyl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-dimethylcarbamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-{4-[2-(4-benzylcarbamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(3-carbamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-{2-[4-(cyclopropylmethyl-carbamoyl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-[4-(cyclohexylmethyl-carbamoyl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5

3-Amino-6-(4-{2-hydroxy-2-[4-(2-methyl-cyclohexylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-{2-hydroxy-2-[4-(1-methyl-1-phenyl-ethylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-hydroxy-2-(4-phenethylcarbamoyl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-(4-{2-[4-(2-dimethylamino-ethylcarbamoyl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-hydroxy-2-[4-(3-nitro-benzylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-hydroxy-2-[4-(3-methoxy-benzylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-{2-[4-(3-chloro-benzylcarbamoyl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-{2-hydroxy-2-[4-(4-hydroxy-piperidine-1-carbonyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-isobutylcarbamoyl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15 3-Amino-6-[4-(2-{4-[(benzo[b]thiophen-2-ylmethyl)-carbamoyl]-phenyl}-2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(4-{2-hydroxy-2-[4-((S)-1-hydroxymethyl-2-phenyl-ethylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

25 3-Amino-6-(4-{2-hydroxy-2-[4-((R)-1-hydroxymethyl-2-phenyl-ethylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-hydroxy-2-[4-(3-hydroxy-propylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5

(4-{2-[1-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperidin-4-ylamino]-1-hydroxy-ethyl}-benzoylamino)-acetic acid methyl ester,

10

3-Amino-6-(4-{2-hydroxy-2-[4-(morpholine-4-carbonyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-hydroxy-2-[4-(3-trifluoromethyl-benzylcarbamoyl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-(4-{2-[4-(3-carbamoyl-benzylcarbamoyl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-[4-(2-{4-[(furan-2-ylmethyl)-carbamoyl]-phenyl}-2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-2-{4-[(pyridin-3-ylmethyl)-carbamoyl]-phenyl}-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures
5 of isomers thereof.

7. A pharmaceutical compound of claim 1 selected from the list consisting of:

3-Amino-6-[4-(2-hydroxy-2-phenyl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-((S)-2-hydroxy-2-phenyl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((R)-2-hydroxy-2-phenyl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-{4-[2-hydroxy-2-(4-nitro-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(3-hydroxy-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-hydroxy-2-(4-hydroxy-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-(4-amino-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-methoxy-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-{4-[2-(4-chloro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

4-{2-[1-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperidin-4-ylamino]-1-hydroxy-ethyl}-benzoic acid methyl ester,

15

3-Amino-6-[4-(2-hydroxy-2-naphthalen-2-yl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-[4-(2-hydroxy-2-naphthalen-1-yl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-{2-[1-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperidin-4-ylamino]-1-hydroxy-ethyl}-benzoic acid methyl ester,

4-{2-[1-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperidin-4-ylamino]-1-hydroxy-ethyl}-benzoic acid,

5 3-Amino-6-{4-[2-(4-benzylsulfamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-cyano-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-{4-[2-hydroxy-2-(4-methanesulfonylamino-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-(4-fluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(2-fluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-{4-[2-(3,4-difluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(3-cyano-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-(4-difluoromethoxy-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-trifluoromethoxy-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-{4-[2-(3,5-difluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-dimethylaminomethyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-hydroxy-2-(4-methylaminomethyl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(2-benzo[1,3]dioxol-5-yl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

8. A pharmaceutical compound of claim 1 selected from the list consisting of:

3-Amino-6-{4-[2-hydroxy-2-(4-morpholin-4-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5

3-Amino-6-[4-(2-biphenyl-4-yl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-3-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-4-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(3-pyridin-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-hydroxy-2-(4-pyrazin-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-pyrimidin-5-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-hydroxy-2-(4-imidazol-1-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-thiazol-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-{2-hydroxy-2-[4-(1-methyl-1H-imidazol-2-yl)-phenyl]-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{2-[4-(1-benzyl-1H-imidazol-2-yl)-phenyl]-2-hydroxy-ethylamino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

9. A pharmaceutical compound of claim 1 selected from the group consisting of:

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3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-carbamoyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-methyl-piperazin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-piperazin-1-yl-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-methanesulfonyl-piperazin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(3-hydroxy-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15 3-Amino-6-(4-amino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-amino-ethanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-oxo-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-carbamoyl-piperazin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-((S)-3-amino-pyrrolidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-((R)-3-amino-pyrrolidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-amino-4-cyano-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

4-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperazine-2-carboxylic acid methyl ester,

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3-Amino-6-[4-(4-amino-butanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-[4-((R)-2-amino-propanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((S)-2-amino-propanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxy-4-methyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-methylamino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-phenethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-(4-aminomethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[1,4]diazepan-1-yl-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2,4-diamino-butanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(1-piperidin-4-yl-methanoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-methyl-[1,4]diazepan-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(3-amino-propylamino)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(3-carbamoyl-piperazin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 6-(4-Acetyl-[1,4]diazepan-1-yl)-3-amino-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(3-carbamoyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(3-amino-perhydro-azepin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(3-aminomethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(2-aminomethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(2-hydroxymethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-[4-((S)-2-amino-3-hydroxy-propionyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-carbamoyl-[1,4]diazepan-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(5-oxo-[1,4]diazepan-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-((S)-2-amino-4-hydroxy-butyryl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-ethylamino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(N-methylcarbamimidoyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxyimino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-[4-(2,3-dihydroxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydrazinocarbonyl-piperazin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-[4-(2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((S)-2-hydroxy-1-methyl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-(4-methanesulfonylamino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-piperidin-4-yl-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(N'-phenyl-hydrazinocarbonyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((R)-2-hydroxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-[4-((S)-2-hydroxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxy-azepan-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-amino-azepan-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-3-hydroxy-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-4-propyl-6-(4-sulfamoyl-piperazin-1-yl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(1,1-dioxo-thiomorpholin-4-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[(1H-indol-3-ylmethyl)-amino]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-chloro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-4-propyl-6-(4-ureido-piperidin-1-yl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxymethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-((S)-3,4-dihydroxy-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[3-hydroxy-4-(toluene-4-sulfonylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[1,4]oxazepan-4-yl-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(carbamoylmethyl-amino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-4-methyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-(3-hydroxy-propyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-((S)-3-hydroxy-4-methanesulfonylamino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-[4-(N'-methylsulfonyl-hydrazino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-2-thiophen-2-yl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-[4-(phenylcarbamoylmethyl-amino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(4-{{(4-carbamoyl-phenylcarbamoyl)-methyl}-amino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-3-phenoxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-3-phenyl-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-hydroxy-3-(4-methoxy-phenoxy)-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[3-(4-carbamoyl-phenoxy)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-[4-(1-imino-ethyl)-piperazin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-amino-3,3-dimethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxy-3,3-dimethyl-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-amino-piperidin-1-yl)-4-cyclopropyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-tert-butyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-amino-piperidin-1-yl)-4-methyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-ethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-amino-piperidin-1-yl)-4-isopropyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-carbamoyl-phenyl)-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-(4-cyclopropylamino-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-4-propyl-6-{4-[(1H-tetrazol-5-ylmethyl)-amino]-piperidin-1-yl}-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

[1-(3-Amino-2-carbamoyl-4-propyl-thieno[2,3-b]pyridin-6-yl)-piperidin-4-ylamino]-acetic acid,

3-Amino-6- {4-[3-(3-cyano-phenoxy)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6- {4-[3-(4-cyano-phenoxy)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((R)-2-hydroxy-3-phenoxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-[4-((S)-2-hydroxy-3-phenoxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6- {4-[3-(4-fluoro-phenoxy)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6- {4-[2-hydroxy-3-(3-methoxy-phenoxy)-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6- {4-[2-hydroxy-3-(4-trifluoromethyl-phenoxy)-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(3-benzyloxy-2-hydroxy-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6- {4-[2-hydroxy-3-(naphthalen-1-yloxy)-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6- {4-[2-hydroxy-3-(naphthalen-2-yloxy)-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6- {4-[3-(4-carbamoyl-phenyl)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6- {4-[3-(3-carbamoyl-phenyl)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-[4-(2-hydroxy-4-phenyl-butylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-[4-(2-hydroxy-3-phenylamino-propylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6- {4-[3-(3-carbamoyl-phenylamino)-2-hydroxy-propylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-2-phenylcarbamoyl-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-[4-(2-benzylcarbamoyl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{{(3-carbamoyl-phenylcarbamoyl)-methyl]-amino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-(4-{{(2-carbamoyl-phenylcarbamoyl)-methyl]-amino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-(4-{{(2-hydroxy-ethylcarbamoyl)-methyl]-amino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-hydroxy-piperidin-1-yl)-2-oxo-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-(4-hydroxy-piperidin-1-yl)-2-oxo-ethylamino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-4-propyl-6-{4-[(quinolin-3-ylcarbamoylmethyl)-amino]-piperidin-1-yl}-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[(naphthalen-1-ylcarbamoylmethyl)-amino]-piperidin-1-yl}-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-{[(carbamoylmethyl-carbamoyl)-methyl]-amino}-piperidin-1-yl)-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-[4-(2-hydroxy-benzylamino)-piperidin-1-yl]-4-propyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

15

10. A pharmaceutical composition of claim 1 selected from the list consisting of:

3-Amino-6-(4-amino-piperidin-1-yl)-4-(4-methanesulfonyl-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(4-amino-piperidin-1-yl)-4-(4-nitro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-phenyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-(4-fluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5

3-Amino-6-(4-amino-piperidin-1-yl)-4-(4-methoxy-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-(4-amino-piperidin-1-yl)-4-(3-nitro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-(3-fluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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4-[3-Amino-6-(4-amino-piperidin-1-yl)-2-carbamoyl-thieno[2,3-b]pyridin-4-yl]-benzoic acid methyl ester,

3-Amino-6-(4-amino-piperidin-1-yl)-4-(2,5-difluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

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3-Amino-6-(4-amino-piperidin-1-yl)-4-(2,4-difluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-(3,4-difluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-amino-piperidin-1-yl)-4-(4-cyano-3-fluoro-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-[3-Amino-6-(4-amino-piperidin-1-yl)-2-carbamoyl-thieno[2,3-b]pyridin-4-yl]-benzoic acid methyl ester,

10 4-[3-Amino-6-(4-amino-piperidin-1-yl)-2-carbamoyl-thieno[2,3-b]pyridin-4-yl]-benzoic acid ethyl ester,

15 3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-(4-methanesulfonyl-phenyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-4-(4-cyano-3-fluoro-phenyl)-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

11. A pharmaceutical composition of claim 1 selected from the list consisting of:

3-Amino-6-(4-amino-piperidin-1-yl)-4-((E)-styryl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(4-chloro-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(2-chloro-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(4-methoxy-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(4-fluoro-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(4-trifluoromethyl-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(4-amino-piperidin-1-yl)-4-((E)-2-p-tolyl-vinyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(2-fluoro-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-((E)-2-m-tolyl-vinyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(3-chloro-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-amino-piperidin-1-yl)-4-[(E)-2-(3-methoxy-phenyl)-vinyl]-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-(4-amino-piperidin-1-yl)-4-((E)-2-pyridin-4-yl-vinyl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

4-{(E)-2-[3-Amino-6-(4-amino-piperidin-1-yl)-2-carbamoyl-thieno[2,3-b]pyridin-4-yl]-vinyl}-benzoic acid methyl ester,

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

12. A pharmaceutical composition of claim 1 selected from the list consisting of:

20

3-Amino-6-(4-amino-piperidin-1-yl)-4-methylsulfanyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-methylsulfanyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-methanesulfonylamino-piperidin-1-yl)-4-methylsulfanyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-2-naphthalen-2-yl-ethylamino)-piperidin-1-yl]-4-methylsulfanyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-methylamino-piperidin-1-yl)-4-methylsulfanyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

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13. A pharmaceutical compound of claim 1 selected from the group consisting of:

3-Amino-6-(4-amino-piperidin-1-yl)-4-ethoxy-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20 3-Amino-6-(4-amino-piperidin-1-yl)-4-isopropoxy-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-4-ethoxy-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-isopropoxy-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(1,1-dioxo-thiomorpholin-4-yl)-4-ethoxy-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-(4-amino-4-methyl-piperidin-1-yl)-4-ethoxy-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-methylamino-piperidin-1-yl)-4-(2,2,2-trifluoro-ethoxy)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

14. A pharmaceutical composition of claim 1 selected from the list consisting of:

20 3-Amino-6-(4-amino-piperidin-1-yl)-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-piperazin-1-yl-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-(4-hydroxy-piperidin-1-yl)-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-(4-methylamino-piperidin-1-yl)-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-4-difluoromethyl-6-(4-methylamino-piperidin-1-yl)-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-[4-(2-hydroxy-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15 and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

15. A pharmaceutical composition of claim 1 selected from the list consisting of:

20 3-Amino-6-{4-[2-(4-benzylcarbamoyl-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-hydroxy-2-naphthalen-2-yl-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-cyano-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-hydroxy-2-(4-methanesulfonyl-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-((S)-2-hydroxy-2-phenyl-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-[4-((R)-2-hydroxy-2-phenyl-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-(4-fluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(2-fluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-(3,4-difluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-difluoromethoxy-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-hydroxy-2-(4-trifluoromethoxy-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(3,5-difluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 3-Amino-6-{4-[2-(3-fluoro-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(3,4,5-trifluoro-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-{4-[2-hydroxy-2-(4-hydroxy-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-(3,4-dimethoxy-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-benzo[1,3]dioxol-5-yl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-[4-(2-benzo[1,3]dioxol-4-yl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-(2,2-difluoro-benzo[1,3]dioxol-5-yl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-(4-benzyloxy-phenyl)-2-hydroxy-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10

3-Amino-6-{4-[2-hydroxy-2-(4-morpholin-4-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

15

3-Amino-6-[4-(2-biphenyl-4-yl-2-hydroxy-ethylamino)-piperidin-1-yl]-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

20

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-3-yl-phenyl)-ethylamino]-piperidin-1-yl}-4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-pyridin-4-yl-phenyl)-ethylamino]-piperidin-1-yl}-
4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

5 3-Amino-6-{4-[2-hydroxy-2-(4-pyrazin-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-
4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

3-Amino-6-{4-[2-hydroxy-2-(4-thiazol-2-yl-phenyl)-ethylamino]-piperidin-1-yl}-
4-trifluoromethyl-thieno[2,3-b]pyridine-2-carboxylic acid amide,

10 and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and
mixtures of isomers thereof.

16. A pharmaceutical composition of claim 1 selected from the list consisting of:

15 3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-pyridin-3-ylamide,

3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-[(4-hydroxy-phenyl)-amide],

20 3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-[(4-carbamoyl-phenyl)-amide],

3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-[(4-sulfamoyl-phenyl)-amide],

5 3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-methylamide,

3-Amino-6-(4-hydroxy-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
2-amide 4-pyridin-4-ylamide,

10 3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid
diamide,

3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid 2-
amide 4-methylamide,

15 3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid 2-
amide 4-phenylamide,

20 3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid 2-
amide 4-pyridin-4-ylamide,

3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid 2-
amide 4-pyridin-3-ylamide,

3-Amino-6-(4-amino-piperidin-1-yl)-thieno[2,3-b]pyridine-2,4-dicarboxylic acid 2-amide 4-[(3-morpholin-4-yl-propyl)-amide],

5 and pharmaceutically acceptable salts, esters, tautomers, individual isomers, and mixtures of isomers thereof.

17. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to claim 1.

10

18. A method of treating an inflammatory or autoimmune disease condition, said method comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 1.

15 19. The method according to claim 18 wherein the inflammatory or autoimmune disease or condition is selected from the list consisting of osteoarthritis, reperfusion injury, asthma, multiple sclerosis, Guillain-Barre syndrome, Crohn's disease, ulcerative colitis, psoriasis, graft versus host disease, systemic lupus erythematosus, rheumatoid arthritis, Alzheimer's disease, toxic shock syndrome, insulin-dependent diabetes mellitus, acute and chronic pain, thermal injury, adult respiratory distress syndrome (ARDS), chronic obstructive pulmonary disease (COPD), multiple organ injury secondary to trauma, acute glomerulonephritis, dermatoses with acute inflammatory components, acute purulent meningitis or other
20 central nervous system disorders, Grave's disease, myasthenia gravis, scleroderma and atopic dermatitis;

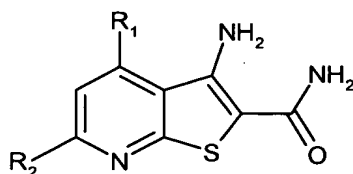
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20. The method of claim 18 wherein the inflammatory or autoimmune disease is selected from osteoarthritis, rheumatoid arthritis, Crohn's disease, ulcerative colitis, asthma, adult respiratory distress syndrome (ARDS) and chronic obstructive pulmonary disease (COPD).

21. A method of treating atherosclerosis, myocardial infarction or stroke, said method comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 1.

5 22. A method of treating cancer selected from lymphoid-, myeloid- and epithelial-derived malignancies, leukemia, lymphomas, breast cancer, gastric cancer, colorectal cancer, lung cancer, and pancreatic cancer, said method comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 1.

10 23. A method of making a compound of formula (I):

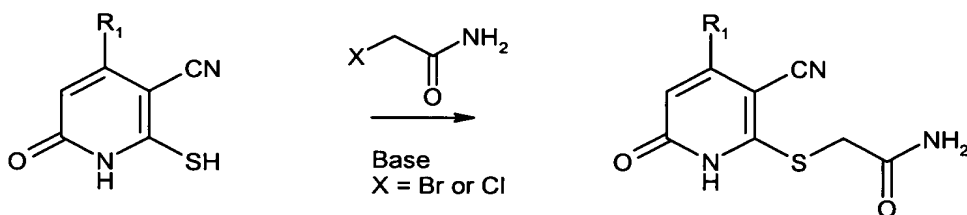


I

where R₁ and R₂ are as defined in claim 4, the method comprising:

15

(a) reacting a compound of formula (XVa) with 2-chloro or 2-bromoacetamide in the presence of a suitable base, in a suitable solvent to form the intermediate of formula (XVIb)



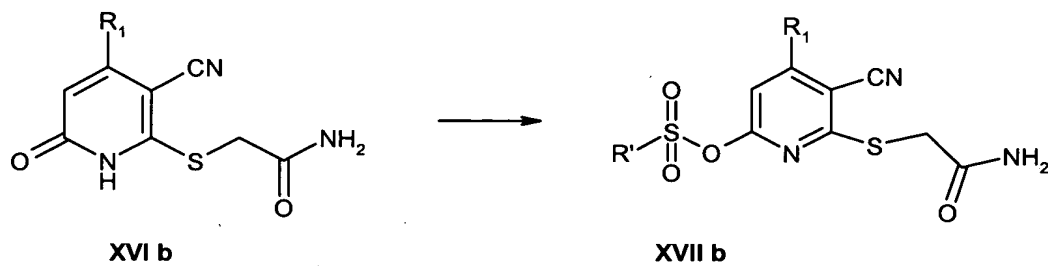
20

XVa

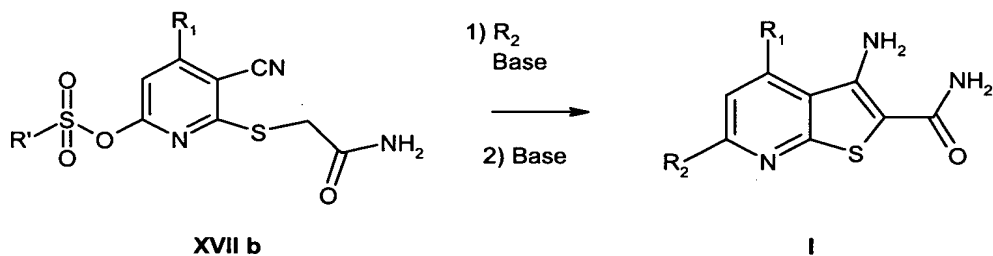
XVIb

;

(b) reacting the intermediate of formula (XVIb) with a suitable sulfonating reagent in the presence of a suitable base in a suitable solvent to form the sulfonyl ester of formula (XVIIb)



- (c) reacting the intermediate of formula (XVIIb) with R_2 in the presence of a suitable base
 5 such as triethylamine, followed by addition of a second suitable base and further reaction
 to form the desired compound of formula (I)



- (d) reacting a nucleophile with a 2,6-dichloro-3-cyano-pyridine, then addition of
 mercaptoacetamide and subsequent cyclization to prepare a compound of formula (I) as
 10 illustrated below:

